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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,121	01/23/2001	Frank O. Distler	BUR920000123USI	3330

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EXAMINER	
CHAUDRY, MUJTABA M	
ART UNIT	**PAPER NUMBER**
2133	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,121	DISTLER ET AL.	
	Examiner	Art Unit	
	Mujtaba K Chaudry	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicants' arguments/amendments with respect to amended claims 1, 9, 13 and 15, and previously present claims 2-8, 10-12, 14 and 16-20 filed December 20, 2004 have been fully considered but are not persuasive. The Examiner would like to point out that this action is made final (See MPEP 706.07a).

In response to Applicants' argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). For example, Applicants contend Rohrbaugh (prior art of record) does not teach, "...requiring that the test vector be targeted at a plurality of faults *prior to filling any of the non-care bits of the original test vector with repeated values*." Emphasis added. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants contend, "...neither Rajski nor Rohrbaugh (prior arts of record) teach filling don't care bits with repeated values..." The Examiner disagrees. Rohrbaugh teaches (col. 2, line 53—col. 3, lines 1-18) a first test vector is generated to test for a given fault in a list of faults to be tested (just like the first test vector generated in static compaction). However, before generating a second test vector, an attempt is made to utilize the first test vector to test for additional faults. In this regard, **the unused bit positions (i.e., don't care values) may be set to**

either "1"s or "0"s, or existing bit positions may be utilized, to the extent that the values need not be changed. A fully compacted test vector is one wherein (i) no PI is at X (don't care), or (ii) no new faults may be detected by making any X value a 0 or a 1. Rohrbaugh teaches that, ideally, dynamic compaction operates to generate a fully compacted test vector before proceeding to the generation of the next test vector. However, in practice, this is usually not the result. Instead, most dynamic compaction algorithms generate what may be termed "substantially compacted" test vectors. As is known, the degree to which a test vector may be compacted will necessarily depend upon the model for the DUT, as well as the particular vectors that are necessary to generate the needed fault tests. Further, after a certain level of compaction has been obtained, further compaction is extremely computationally intensive and thus time consuming. Therefore, once a certain level of compaction has been obtained, the vector is often deemed substantially compacted, and no further compaction is attempted. Instead, the don't care bit positions of the substantially compacted vector are random filled (with 1s and 0s) and fault simulated, and a new test vector is generated. Therefore, the Examiner would like to point out that Rohrbaugh teaches to first fill the don't care values with a repeated value to obtain a "substantially compacted" test vector and only then use random filling. Therefore, the technique and limitation of "filling said non-care bits with a repeated value..." is indeed taught by Rohrbaugh. Furthermore, the Examiner would like to point out that Rajski alludes to (col. 7, lines 40-45) the concept of continuous flow decompression described herein rests on the fact noted above that **deterministic test patterns typically have only between 2 to 5 % of bits deterministically specified**, with the remaining bits randomly filled during test pattern generation.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajski et al. (USPN 6327687) in view of Rohrbaugh et al. (USPN 6067651). See prior office action.

The Examiner disagrees with the Applicants and maintains rejections with respect to amended claims 1, 9, 13 and 15, and previously present claims 2-8, 10-12, 14 and 16-20. All arguments have been considered. It is the Examiner's conclusion that amended claims 1, 9, 13 and 15, and previously present claims 2-8, 10-12, 14 and 16-20 are not patentably distinct or non-obvious over the prior art of record. See office actions.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). Applicants are invited to read/review additional pertinent prior art that has been cited herein.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiries concerning this communication should be directed to the examiner, Mujtaba Chaudry who may be reached at 571-272-3817. The examiner may normally be reached Mon – Thur 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Albert DeCady at 571-272-3819.

Mujtaba Chaudry
Art Unit 2133
February 3, 2005

Gregory J. Lamarre
Primary Examiner